

## METABOLICALLY ENGINEERED LACTIC ACID BACTERIA AND THEIR USE

## ABSTRACT

Mutants of lactic acid bacteria including *Lactococcus lactis* which are defective in pyruvate formate-lyase production  
5 and/or in their lactate dehydrogenase (Ldh) production and methods of isolating such mutants or variants are provided. The mutants are useful in the production of food products or in the manufacturing of compounds such as diacetyl, acetoin and acetaldehyde and as components of food starter cultures.